

REMARKS

Introduction

Claims 1-13 remain pending in the present application.

In this Response, claim 1 has been amended for clarity. In particular, “unreactive polymer ” has been replaced with “unreactive polymer” thus deleting an unnecessary space after “unreactive polymer”. Further, an extra “is” in the definition of R₅ has been deleted. Finally, “halogen-free” has been added to the description of the presently recited “green colorant”. It should be noted that the “halogen-free green colorant” was discussed in the previous response. Exemplary support for “halogen-free” can be found throughout the specification as originally filed. (See, for example, the title of the invention).

As no new matter has been added via the above claim amendments, entry of the above is requested at this time without requiring the submission of a Request for Continued Examination.

Claims 4, 5, and 7-10 remain withdrawn pursuant to the restriction requirement response dated November 2, 2006.

Applicants would like to thank the Examiner for indicating dependent claims 3 and 12 as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants respectfully request the Examiner to reconsider and withdraw the outstanding rejections in view of the foregoing amendments and the following remarks.

Rejection under 35 U.S.C. § 103

Claims 1, 2, 6, 11, and 13 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Publication No. 2002/0025402 (hereinafter “Tronche”) in view of U.S. Patent No. 7,144,677 (hereinafter “Yashiro”). This rejection is respectfully traversed.

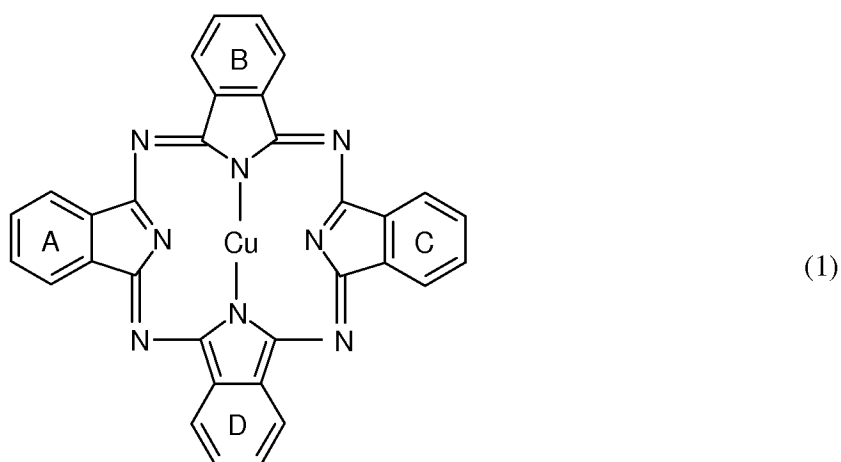
Legal Standard

It should be noted that the Office has the initial burden of establishing a factual basis to support the legal conclusion of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). For rejections under 35 U.S.C. § 103(a) based upon a combination of prior art elements, in *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 1741, 82

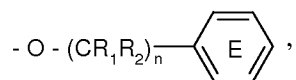
USPQ2d 1385, 1396 (2007), the Supreme Court stated that a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). Moreover, all words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Pending Claims

Independent claim 1, from which rejected dependent claims 2, 6, 11, and 13 directly or indirectly depend, recites a photosensitive resin composition comprising as a component (A) a halogen-free green colorant of the formula



in which the rings A, B, C and D are substituted by hydroxy or by the moiety



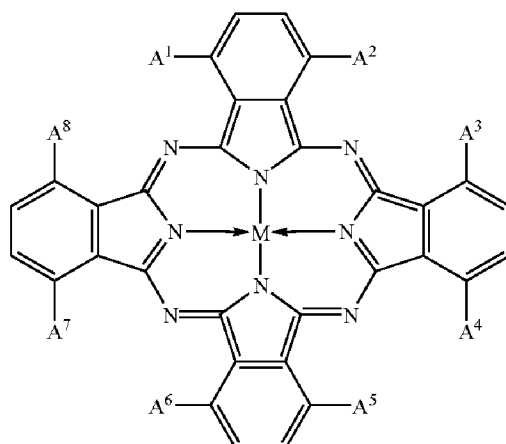
wherein R_1 is hydrogen or C_1 - C_4 -Alkyl, R_2 is hydrogen or C_1 - C_4 -Alkyl, n is 0, 1, 2 or 3 and the ring E is unsubstituted or substituted by C_1 - C_6 alkyl, C_1 - C_6 alkoxy, hydroxy, $NHCO R_3$, $NHSO_2 R_4$ or $SO_2 NHR_5$, wherein R_3 is C_1 - C_4 -Alkyl or phenyl, R_4 is C_1 - C_4 -Alkyl or phenyl and R_5 is C_1 - C_4 -Alkyl or phenyl,

- b) as a component (B) an alkali soluble reactive or unreactive oligomer or reactive or unreactive polymer,
- c) as a component (C) a polymerizable monomer,
- d) as a component (D) a photoinitiator,
- e) as a component (E) an epoxy compound,
- and also, if desired,
- f) as a component (F) further additives.

Cited Art

Tronche is directed to a radiation-curable coating composition comprising at least one acrylate monomer and a phthalocyanine dye. (Abstract and Page 5, paragraph [0046]).

Yashiro is directed to the following phthalocyanine compound:



(Cols. 5-7).

Differences between Pending Claims and Cited Art

With regard to Tronche, it is respectfully submitted that Tronche at least fails to disclose or suggest the presently recited “halogen-free green colorant” of formula (1).

The Examiner concedes that Tronche does not disclose or suggest the presently recited colorant and thus cites Yashiro to allegedly cure this deficiency. (Page 2, Final Office Action dated June 25, 2010).

With regard to Yashiro, it is respectfully submitted that even Yashiro fails to teach the presently recited “halogen-free green colorant” of formula (1).

While Yashiro's phthalocyanine compound (shown hereinabove) may appear similar to the presently recited "halogen-free green colorant" of formula (1), Yashiro fails to disclose a "green colorant" let alone a "halogen-free green colorant", as presently recited.

First, it should be noted that Yashiro's compound can include halogen atoms. In particular, Yashiro provides that A¹ through A⁸ in the above compound can be a halogen group. (Col. 6, line 22). In contrast to Yashiro, it should be noted that the presently pending independent claim 1 recites "a halogen-free green colorant". Second, Yashiro does not disclose a green colorant at any point in its disclosure. In fact, even the exemplified embodiments (Examples 1 and 2) in Yashiro do not discuss a green colorant and more particularly, both examples of Yashiro are directed to a colorant containing halogen groups. Thus, Yashiro's teachings are in direct contrast to the presently pending claims.

It should be noted that "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). In view of at least the foregoing and in light of at least the above discussion, it is respectfully submitted that a *prima facie* case of obviousness has not been established against the present claims based on the cited art.

Even if it were assumed *arguendo* that a *prima facie* case of obviousness has been established in view of the cited art, a *prima facie* case of obviousness can be rebutted by a showing of unexpected results. (See, for example, *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963)). In this regard, as discussed in the previous response, it should be noted that the examples in the present specification show that no discoloration of the cured coating occurred after heat treatment compared to the reference. (See Examples in the present specification). Thus, the use of "halogen-free green colorant" of formula (1) shows good heat stability.

Accordingly, the cited art also does not appreciate the importance and resulting advantages of the presently recited "halogen-free green colorant" of formula (1), which can be used in solder resists, etching resists or plating resists in the manufacture of printed circuit boards. (Page 1 of the present specification). Thus, it is respectfully submitted that even in combination, Tronche and Yashiro fail to disclose or suggest "a halogen-free green colorant", as presently recited in independent claim 1.

In view of at least the above, the rejection over Tronche and Yashiro should be withdrawn.

Conclusion

The Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below if any issues remain in this matter, or if a discussion regarding any portion of the application is desired by the Examiner.

Respectfully submitted,
Law Office of Shruti Costales, PLLC

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